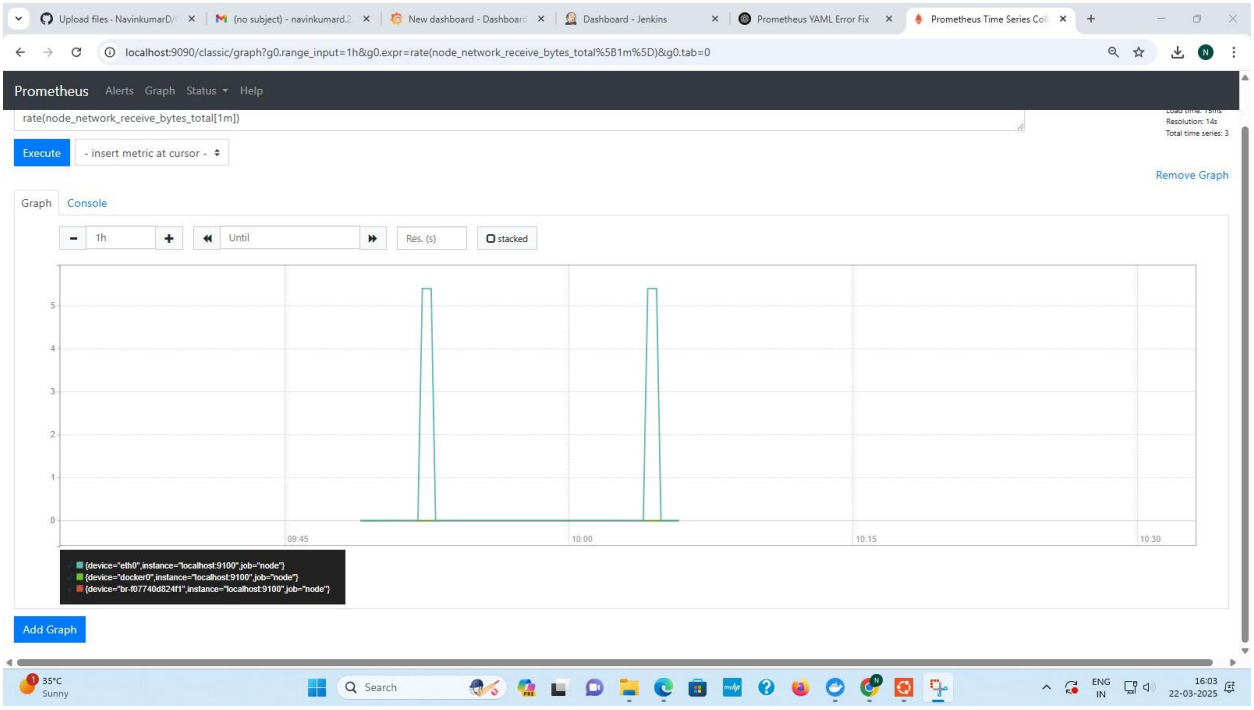
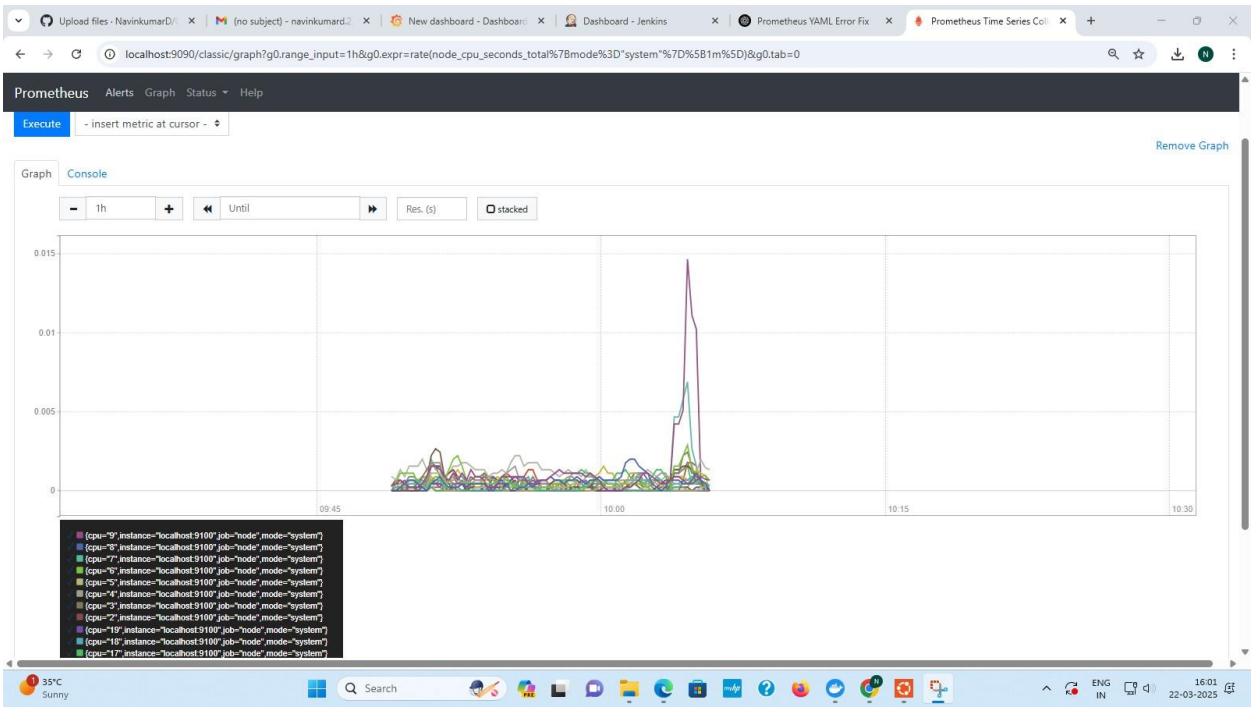
Prometheus

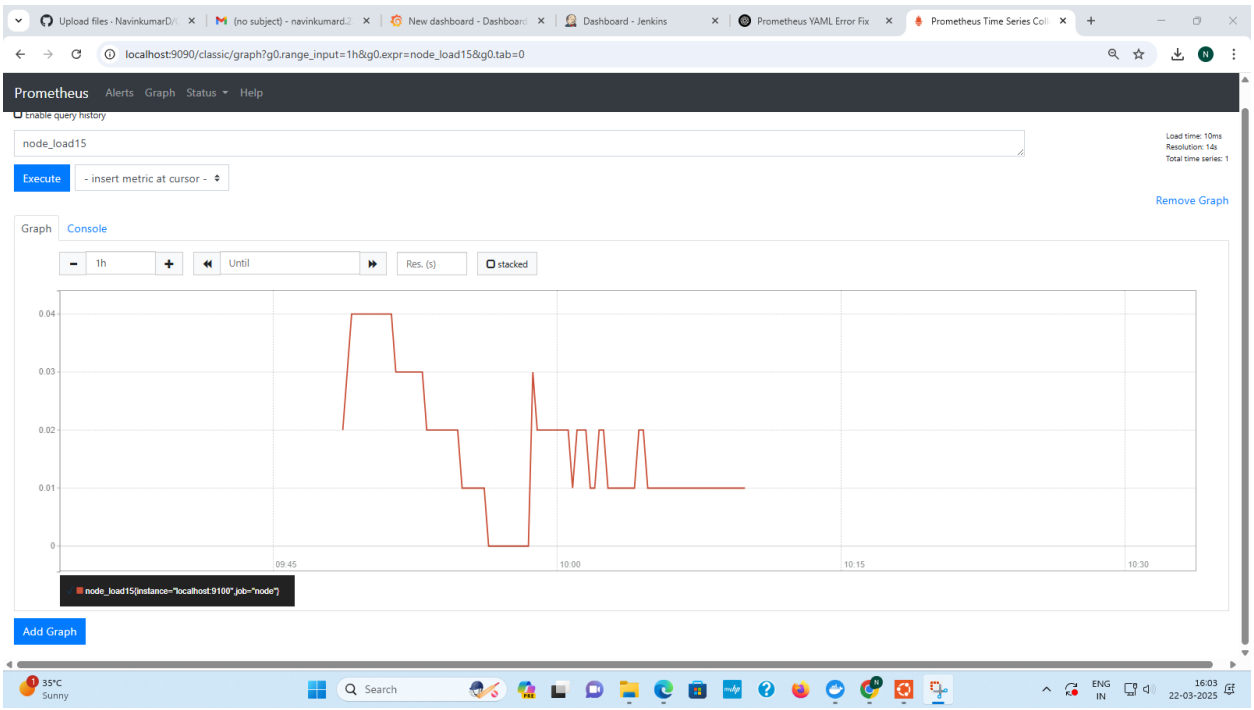
Prometheusisanopen-sourcesystemmonitoringandalertingtoolkitoriginallybuiltat SoundCloud.Itisnowastandaloneopen-sourceproject.PrometheusjoinedtheCloud Native.ComputingFoundationin2016asthesecondhostedproject,afterKubernetes.

Features

1. A multi-dimensionaldatamodelwithtimeseriesdataidentifiedbymetricnameand key/value pairs
2. PromQL,aflexiblequerylanguagetoleveragethisdimensionality
3. norelianceondistributedstorage;singleservernodesare autonomous
4. timeseriescollectionhappensviaapullmodeloverHTTP
5. pushingtimeseriesissupportedviaanintermediarygateway
6. targetsarediscoveredviaservicediscoveryorstaticconfiguration
7. multiplemodesofgraphinganddashboarding support



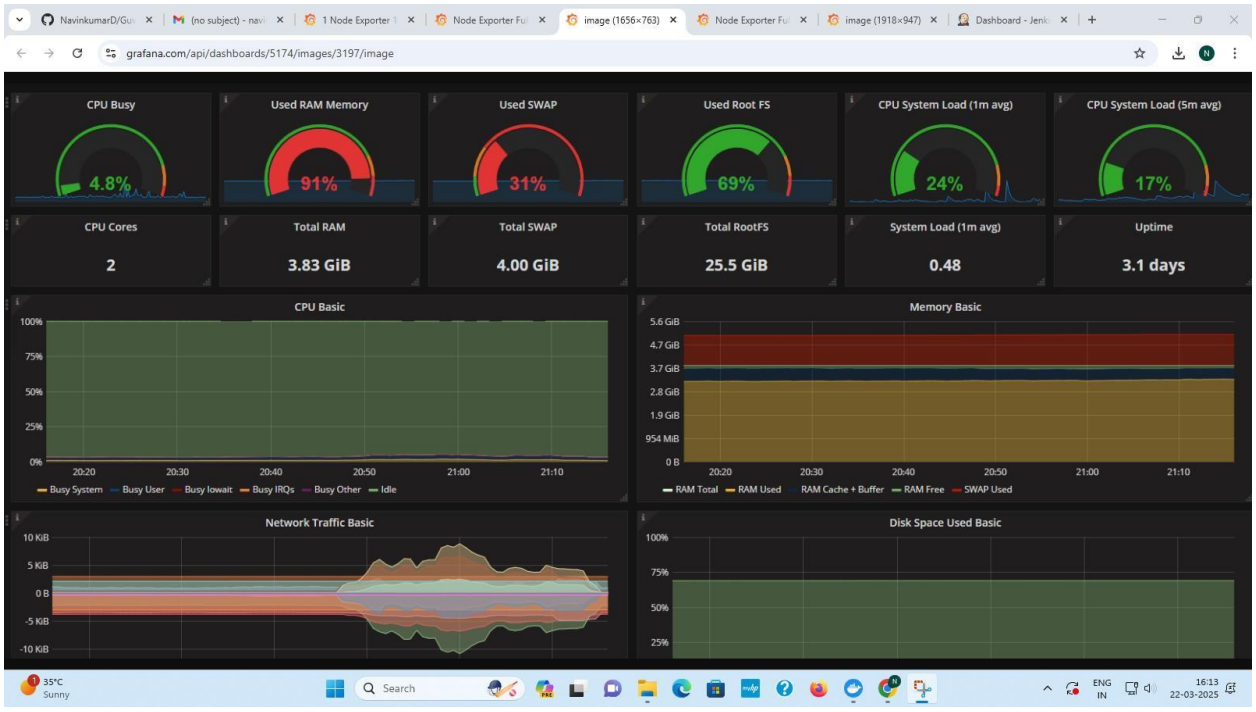

Prometheus
Alerts
Graph
Status
Help
Execute
- insert metric at cursor -
Remove Graph
Graph
Console
1h
Until
Res. (s)
stacked
0.015
0.01
0.005
0
09:45
10:00
10:15
10:30
{cpu="9",instance="localhost:9100",job="node",mode="system"}
{cpu="8",instance="localhost:9100",job="node",mode="system"}
{cpu="7",instance="localhost:9100",job="node",mode="system"}
{cpu="6",instance="localhost:9100",job="node",mode="system"}
{cpu="5",instance="localhost:9100",job="node",mode="system"}
{cpu="4",instance="localhost:9100",job="node",mode="system"}
{cpu="3",instance="localhost:9100",job="node",mode="system"}
{cpu="2",instance="localhost:9100",job="node",mode="system"}
{cpu="19",instance="localhost:9100",job="node",mode="system"}
{cpu="18",instance="localhost:9100",job="node",mode="system"}
{cpu="17",instance="localhost:9100",job="node",mode="system"}

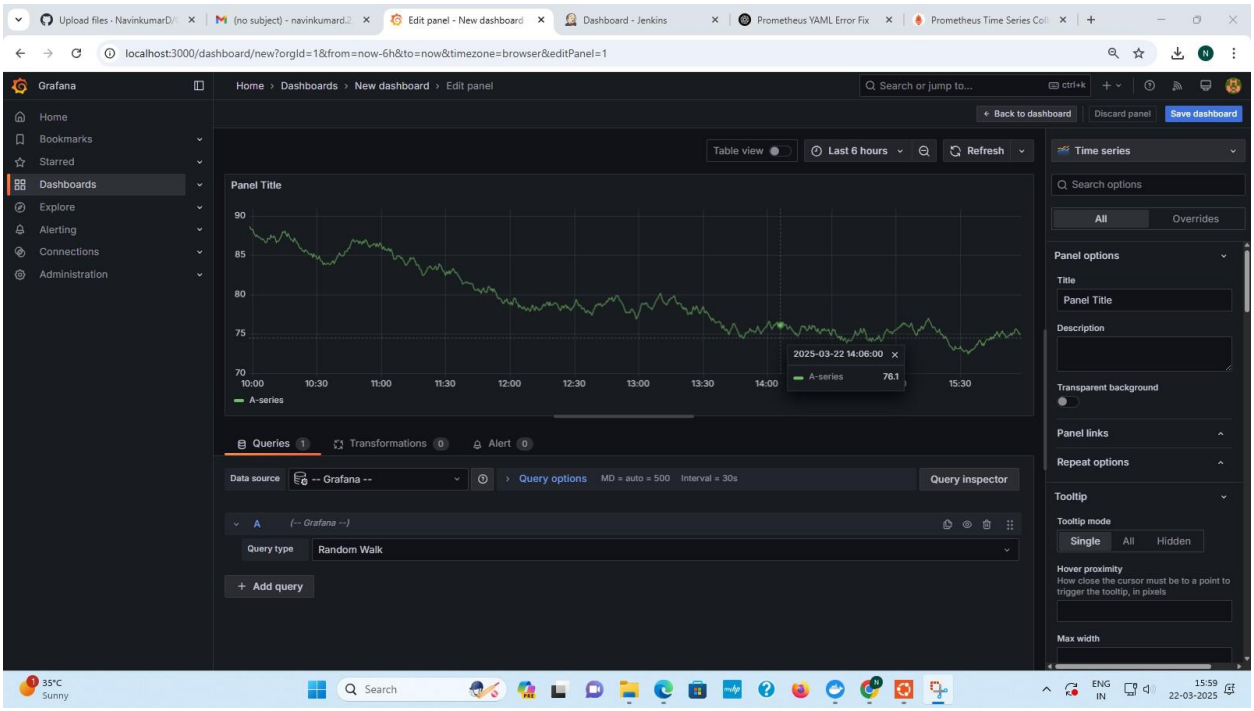

Prometheus
Alerts
Graph
Status
Help
Enable query history
node_load15
Load time: 10ms
Resolution: 14s
Total time series: 1
Execute
- insert metric at cursor -
Remove Graph
Graph
Console
1h
Until
Res. (s)
stacked
0.04
0.03
0.02
0.01
0
09:45
10:00
10:15
10:30
node_load15{instance="localhost:9100",job="node"}
Add Graph

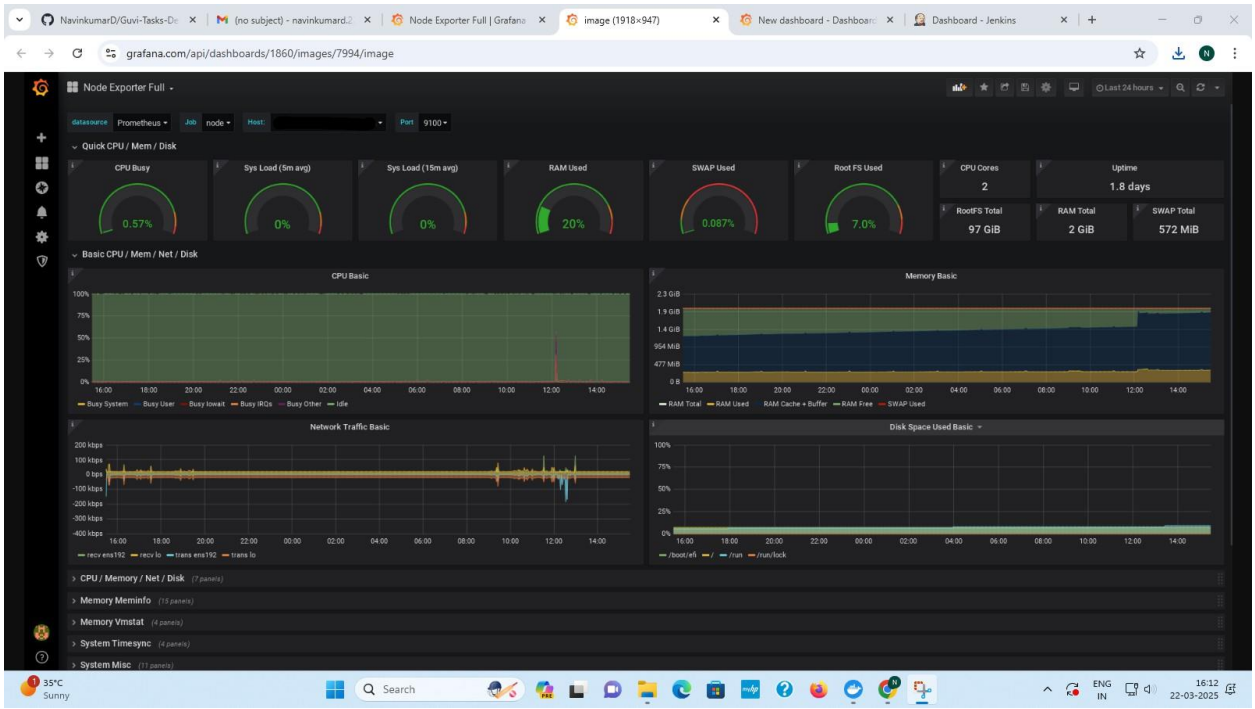
Grafana

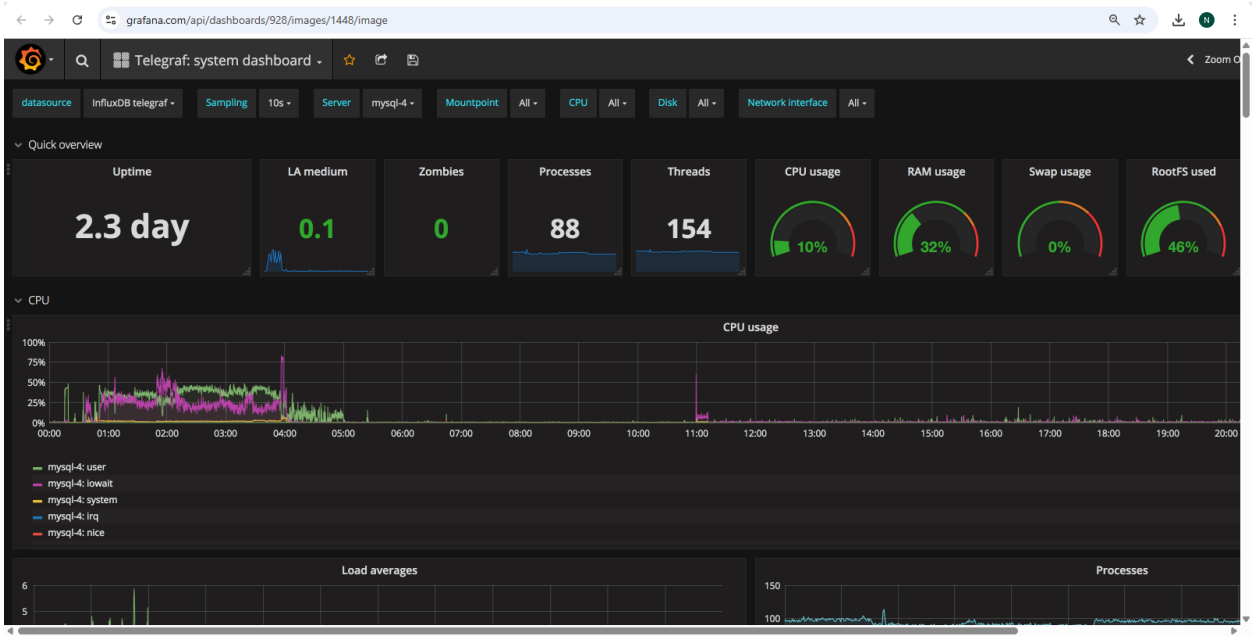
It is a powerful open-source platform used for monitoring, visualizing, and analyzing data from various sources, enabling teams to gain insights into their infrastructure and applications, and proactively identify and resolve issues.

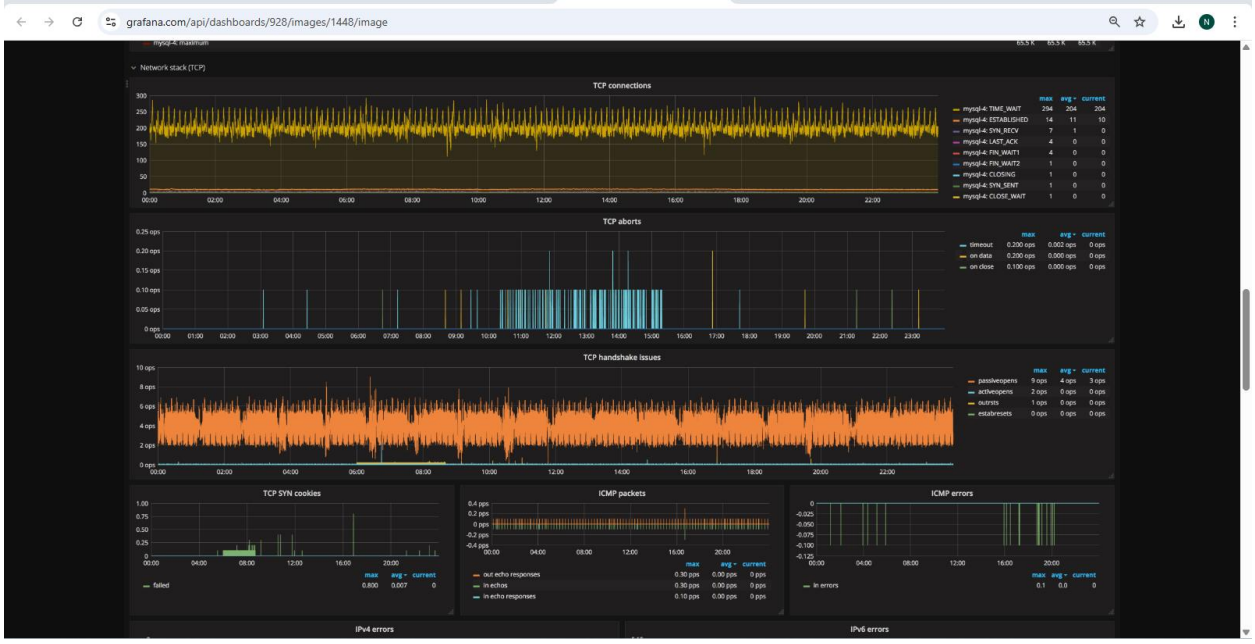
Grafana is a tool used to analyze and visualize data However, this data would have to be stored somewhere in order for Grafana to access and display it. These databases are what we refer to as data sources, and a Grafana datasource is simply any database from which it can pull data.




Grafana
Home › Dashboards › New dashboard › Edit panel
Back to dashboard
Discard panel
Save dashboard
Table view
Last 6 hours
Refresh
Time series
Panel Title
A-series
Queries
Transformations
Alert
Data source
-- Grafana --
Query options
Query inspector
Query type
Random Walk
Add query
Panel options
Title
Panel Title
Description
Transparent background
Panel links
Repeat options
Tooltip
Tooltip mode
Single
All
Hidden
Hover proximity
Max width


Node Exporter Full
Quick CPU / Mem / Disk
CPU Busy
Sys Load (5m avg)
Sys Load (15m avg)
RAM Used
SWAP Used
Root FS Used
CPU Cores
Uptime
1.8 days
RootFS Total
RAM Total
SWAP Total
Basic CPU / Mem / Net / Disk
CPU Basic
Memory Basic
Network Traffic Basic
Disk Space Used Basic
CPU / Memory / Net / Disk
Memory Meminfo
Memory Vmstat
System Timesync
System Misc


grafana.com/api/dashboards/928/images/1448/image
Telegraf: system dashboard
datasource
InfluxDB telegraf
Sampling
10s
Server
mysql-4
Mountpoint
All
CPU
All
Disk
All
Network interface
All
Quick overview
Uptime
2.3 day
LA medium
0.1
Zombies
0
Processes
88
Threads
154
CPU usage
10%
RAM usage
32%
Swap usage
0%
RootFS used
46%
CPU
CPU usage
100%
75%
50%
25%
0%
00:00
01:00
02:00
03:00
04:00
05:00
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
19:00
20:00
mysql-4: user
mysql-4: iowait
mysql-4: system
mysql-4: irq
mysql-4: nice
Load averages
6
5
Processes
150
100


grafana.com/api/dashboards/928/images/1448/image
Network stack (TCP)
TCP connections
TCP aborts
TCP handshake issues
TCP SYN cookies
ICMP packets
ICMP errors
IPv4 errors
IPv6 errors